

## CLAIMS

Sub. CI. 1 An extensible and replaceable layered component computing arrangement  
2 residing on a computer coupled to a computer network, the layered  
3 arrangement comprising:

4 a software component architecture layer interfacing with an operating  
5 system to control the operations of the computer, the software component  
6 architecture layer defining a plurality of computing components; and

7 a network component layer for developing network navigation  
8 components that provide services directed to the computer network, the  
9 network component layer coupled to the software component architecture  
10 layer in integrating relation to facilitate communication among the computing  
11 and network navigation components.

1 2. The computing arrangement of Claim 1 wherein the network navigation  
2 components are objects and wherein the network component layer comprises  
3 application programming interfaces delivered in the form of objects in a class  
4 hierarchy.

Sub A1 1 3. The computing arrangement of Claim 2 wherein the application  
2 programming interfaces include a CyberItem class for constructing a first  
3 network navigation object representing a network resource available at any  
4 location on the computer networks.

1 4. The computing arrangement of Claim 3 wherein the application  
2 programming interfaces further include a CyberStream class for constructing  
3 a second network navigation object representing a data stream for transferring  
4 information among objects of the arrangement.

1 5. The computing arrangement of Claim 4 wherein the first network  
2 navigation object is a CyberItem object and the second network navigation  
3 object is a CyberStream object, and wherein the CyberItem object spawns the  
4 CyberStream object to obtain information from the network resource that the  
5 CyberItem object represents.

1 6. The computing arrangement of Claim 4 wherein the application  
2 programming interfaces further include a CyberExtension class for  
3 constructing a third network navigation object representing additional  
4 behaviors provided to computing components of the software component  
5 architecture layer to thereby enable communication between the computing  
6 components and the network navigation components.

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1 7. An extensible and replaceable layered component computing arrangement  
2 for providing services directed to information available on computer  
3 networks, the computing arrangement comprising:  
4 a processor;  
5 an operating system;

6 a software component architecture layer coupled to the operating  
7 system to control the operations of the processor, the software component  
8 architecture layer defining a plurality of computing components; and  
9 a network component layer for creating network navigation  
10 components configured to search and obtain information available on the  
11 computer networks, the network component layer integrally coupled to the  
12 software component architecture layer to ensure communication among the  
13 computing and network navigation components.

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